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DOCKET NO.: 9528-007-27 DIV

ASSISTANT COMMISSIONER FOR PATENTS  
PO BOX 1450  
ALEXANDRIA, VA 22313-1450

Re: Serial No.: 10/609,385  
Applicant(s): Stephen W. DOWNING  
Filing Date: July 1, 2003  
For: APPARATUSES AND METHODS FOR PERFORMING MINIMALLY  
INVASIVE DIAGNOSTIC AND SURGICAL PROCEDURES INSIDE  
OF A BEATING HEART

SIR:

Attached hereto for filing are the following papers:

Information Disclosure Statement  
PTO-1449

Our check in the amount of \$ 0 is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary extension of time to make the filing of the attached documents timely, please charge or credit the difference to Deposit Account No. 50-1442. Further, if these papers are not considered timely filed, then a request is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

PIPER RUDNICK LLP

Steven B. Kelber  
Attorney of Record  
Registration No.: 30,073

Perry E. Van Over  
Registration No.: 42,197

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION: Stephen W. DOWNING  
SERIAL NUMBER: 10/609,385  
FILED: July 1, 2003



GROUP ART UNIT:  
EXAMINER:

FOR: APPARATUS AND METHOD FOR ~~PERFORMING~~ MINIMALLY INVASIVE DIAGNOSTIC AND SURGICAL PROCEDURES INSIDE OF A OF A BEATING HEART

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. 1.97

Assistant Commissioner for Patents  
PO BOX 1450  
ALEXANDRIA, VA 22313-1450

Sir:

Applicant(s) wish(es) to disclose the following information.

REFERENCES

Applicant(s) wish(es) to make of record the documents listed on the attached Form PTO-1449. Copies of the listed documents were cited in Parent Application Serial No. 09/881,045, filed June 15, 2001, pending.

RELATED CASES

Attached is a list of Applicant's(s') pending applications and issued patents which may be related to the present application. Copies of the documents, where required, are attached along with Form PTO-1449.

CERTIFICATION

The undersigned certifies that

each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign or international patent office in a counterpart foreign or international application for the first time (to the knowledge of the undersigned, having made reasonable inquiry) not more than three months prior to the filing of this statement.

no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign or international patent office in a counterpart foreign or international application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of this statement.

BASIS FOR CONSIDERATION

This Information Disclosure Statement is filed:

without fee and within three months of the filing date of the application.  
 without fee and within three months of the date of entry of the U.S. national stage.  
 without fee and before the mailing date of a first Office Action on the merits (to the knowledge of the undersigned).

DEPOSIT ACCOUNT

Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to Deposit Account No. 50-1442.

Respectfully submitted,

PIPER RUDNICK LLP

Steven B. Kelber  
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Registration No. 30,073  
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 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT (Use Several Sheets if Necessary)	DOCKET NO.	SERIAL NO.
	9528-007-27 DIV	10/609,385
	APPLICANT	
	Stephen W. DOWNING	
FILING DATE	GROUP ART UNIT	
July 1, 2003		

## U.S. PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	5,797,933	08/1998	SNOW et al.			
	AB	6,297,322	09/2001	ZHU et al.			
	AC	6,231,587	05/2001	Joshua MAKOWER			
	AD	5,957,949	09/1999	LEONHARDT et al.			
	AE	5,591,195	1/1997	TAHERI et al.			
	AF	4,000,739	1/1977	Robert C. STEVENS			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES      NO
	AG				

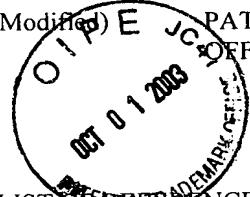
## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

AH	Cohn, L.H., et al., "Mechanical and Bioprosthetic Mitral Valve Replacement", Cardiac Surgery in the Adult, McGraw-Hill, Health Professions Division, 34, 1025-1050 (1997).	
AI	Cosgrove III, D.M., et al., "Minimally Invasive Valve Operations", Ann. Thorac. Surg., 65, 1535-1539 (1998).	
AJ	Navia, J.L., et al., "Minimally Invasive Mitral Valve Operations", Ann. Thorac. Surg., 62, 1542-1544 (1996).	
AK	Aklog, L. et al., "Techniques and Results of Direct-Access Minimally Invasive Mitral Valve Surgery: A Paradigm for the Future", Journal of Thoracic and Cardiovascular Surgery, 705-715 (1998).	
AL	Cohn, L.H., et al., "Minimally Invasive Cardiac Valve Surgery Improves Patient Satisfaction While Reducing Costs of Cardiac Valve Replacement and Repair", Annals of Surgery, 226, 4, 421-428 (1997).	
AM	Loulmet, D.F., et al., "Less Invasive Techniques for Mitral Valve Surgery", Journal of Thoracic and Cardiovascular Surgery, 115, 772-779 (1998).	
AN	Mohr, F.W., et al., "Minimally Invasive Port-Access Mitral Valve Surgery", Journal of Thoracic and Cardiovascular Surgery, 115, 567-576 (1998).	
AO	Chitwood, Jr., W.R., et al., "Video-Assisted Minimally Invasive Mitral Valve Surgery: The "Micro-Mitral" Operation", Journal of Thoracic and Cardiovascular Surgery, 113, 2, 413-414 (1997).	
AP	Gundry, S.R., et al., "Facile Minimally Invasive Cardiac Surgery via Ministernotomy", Ann. Thorac. Surg., 65, 1100-1104 (1998).	

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

 Form PTO 1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  LIST OF REFERENCES CITED BY APPLICANT (Use Several Sheets if Necessary)	DOCKET NO.	SERIAL NO.
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July 1, 2003		

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

AQ	Downing, S.W., et al., "Release of Vasoactive Substances During Cardiopulmonary Bypass", Ann. Thorac. Surg., 54, 1236-1243 (1992).
AR	Westaby, S., et al., "Less Invasive Coronary Surgery: Consensus From the Oxford Meeting", Ann. Thorac. Surg., 62, 924-931 (1996).
AS	Siminelakis, S., et al., "A Study of the Effects of Extracorporeal Circulation on the Immunologic System of Humans", Journal of Cardiothoracic and Vascular Anesthesia, 10, 7, 893-898 (1996).
AT	Gill, R., et al., "Neuropsychologic Dysfunction After Cardiac Surgery: What Is the Problem?", Journal of Cardiothoracic and Vascular Anesthesia, 10, 1, 91-98 (1996).
AU	Taylor, K., "Brain Damage During Cardiopulmonary Bypass", Ann. Thorac. Surg., 65, 20-26 (1998).
AV	Taylor, K.M., "Central Nervous System Effects of Cardiopulmonary Bypass", Ann. Thorac. Surg., 66, 20-24 (1998).
AW	Roach, G.W., et al., "Adverse Cerebral Outcomes After Coronary Bypass Surgery", New England Journal of Medicine, 335, 25, 1857-1863 (1996).
AX	Jansen, E.W., et al., "Less Invasive Off-Pump CABG Using a Suction Device for Immobilization: the 'Octopus' Method", European Journal of Cardio-thoracic Surgery, 12, 3, 406-412 (1997).
AY	Takuma, S., et al., "Evaluation of Mitral Valve Disease Using Transesophageal Echocardiography", Seminars in Thoracic and Cardiovascular Surgery, 10, 4, 247-254 (1998).
AZ	Daniel, W.G., et al., "Transesophageal Echocardiography", New England Journal of Medicine, 332, 1268-1279 (1995).
BA	Foster, G.P., et al., "Accurate Localization of Mitral Regurgitant Defects Using Multiplane Transesophageal Echocardiography", Ann. Thorac. Surg., 65, 1025-1031 (1998).
BB	Takuma, S., et al., "Real-Time, 3-Dimensional Echocardiography Acquires All Standard 2-Dimensional Images From 2 Volume Sets: A Clinical Demonstration in 45 Patients", Journal of the American Society of Echocardiography, 12, 1, 1-6 (1999).
BC	Umaña, J.P., et al., "Bow-Tie' Mitral Valve Repair: An Adjuvant Technique for Ischemic Mitral Regurgitation", Ann. Thorac. Surg., 66, 1640-1646 (1998).
BD	Morales, D.L.S., et al., "Development of an Off Bypass Mitral Valve Repair", Heart Surgery Forum, 2 (2), 115-120 (1999).
BE	St. Jude Medical Corporation, 1998: Personal Communication.
BF	Baldwin, J.C., "Surgery for Acquired Heart Disease, Editorial (Con) Re Minimally Invasive Port-Access Mitral Valve Surgery", Journal of Thoracic and Cardiovascular Surgery, 115, 563-564 (1998).

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Form PTO 1449 (Modified)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE
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LIST OF REFERENCES CITED BY APPLICANT (Use Several Sheets if Necessary)	

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## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	BG	Buckberg, G.D., et al., "Integrated Myocardial Management: Background and Initial Application", Journal Card. Surg., 10, 68-89 (1995).
	BH	Kirklin, J.W., "Myocardial Management During Cardiac Surgery With Cardiopulmonary Bypass", Cardiac Surgery, 3, 129-165 (1993).
	BI	Gorman, R.C., et al., "Cardiopulmonary Bypass, Myocardial Management, and Support Techniques, Surface-Bound Heparin Fails to Reduce Thrombin Formation During Clinical Cardiopulmonary Bypass", Journal of Thoracic and Cardiovascular Surgery, 111, 1, 1-12 (1996).
	BJ	Edmunds, Jr., L.H., "Blood-Surface Interactions During Cardiopulmonary Bypass", Journal Card. Surg., 8, 404-410 (1993).
	BK	Chung, J.H., et al., "Pericardial Blood Activates the Extrinsic Coagulation Pathway During Clinical Cardiopulmonary Bypass", Circulation, 93, 11, 2014-2018 (1996).
	BL	Edmunds, Jr., L.H., "Why Cardiopulmonary Bypass Makes Patients Sick: Strategies to Control the Blood-Synthetic Surface Interface", Advances in Cardiac Surgery, 6, 131-167 (1995).
	BM	Edmunds, Jr., L.H., "Inflammatory Response to Cardiopulmonary Bypass", Ann. Thorac. Surg., 66, S12-S16 (1998).
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